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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/980,562

06/11/2002

Robert Meredith Appleyard

WATE-001

8829

7590

05/25/2004

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EXAMINER

LUU, THANH X

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,562

Applicant(s)

APPLEYARD, ROBERT
MEREDITH

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 12-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

This Office Action is in response to amendments and remarks filed April 22, 2004. Claims 1-21 are currently pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 and 19-21, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Appleyard et al. (WO 9725568) in view of Tourres (U.S. Patent 4,170,417).

Regarding claims 1-5, 7, 8 and 19-21, Appleyard et al. disclose (see Figure 2) a safety system for an industrial press having a moveable section, comprising: a laser emitting means (22) for emitting a laser beam; a light receiving means (24) for receiving the laser beam and for detecting when an object intersects the laser beam; and a control means (25) for stopping or preventing movement of the moveable section of the press when the receiving means detects that the laser beam has intersected the object. Appleyard et al. further discloses a plurality of laser beams forming a plane. Appleyard et al. also disclose (see Figure 1) the press has a blade (18) and an anvil moveable relative to each other, the safety system being located such that the plane of the laser beams is emitted immediately adjacent the leading edge of the blade. In addition, Appleyard et al. disclose (see Figure 2) the plane of the laser beams is at least

substantially horizontal and is located between the blade and the anvil. Appleyard et al. also disclose (see page 13, last paragraph) disposing the plane of laser beams vertically and (see Figure 2) the laser emitting means and light receiving means is mounted on or immediately adjacent the blade, which is moveable. Appleyard et al. further disclose (see Figure 2) mounting the light emitting means and light receiving means on adjustable supports (21), the supports being adjusted or fixed depending on the adjustments. Appleyard et al. do not specifically disclose a planar laser beam having a generally constant lateral width. Tourres teaches (see Figure 1) a laser emitting means for emitting a continuous planar laser beam having a constant lateral width for object detection. Thus, Tourres recognizes that laser emitting sources are consolidated in such a configuration. Tourres also teaches (see Figure 1) the laser emitting means includes a laser emitter (1) for emitting a laser beam, and a lens assembly (at 2 and 3) for varying the configuration of the laser beam into the planar laser beam of planar shape and constant lateral width. Tourres further teaches (see Figure 1) a cylindrical prism (2) and a converging lens (3) as claimed. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the laser emitting means of Tourres in the apparatus of Appleyard et al. to reduce the number of laser emitting sources to reduce costs or increase the efficiency of the apparatus.

Regarding claim 6, Appleyard et al. in view of Tourres disclose the claimed invention as set forth above. Appleyard et al. and Tourres do not specifically disclose a plurality of planar laser beams. However, it is a matter of routine skill in the art to add

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additional light sources and receivers. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide additional planes of light in the apparatus of Appleyard et al. in view of Tourres to provide further safety in the industrial press.

Regarding claims 9-11, Appleyard et al. in view of Tourres disclose the claimed invention as set forth above. Appleyard et al. and Tourres do not specifically disclose a correcting lens as claimed. However, collimating optics are well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide correcting lenses or collimating optics in the apparatus of Appleyard et al. in view of Tourres to provide a coherent defined planar beam for improved detection.

Allowable Subject Matter

3. Claims 12-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed April 22, 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that Tourres is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention.

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See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Applicant's invention deals with using laser beams for detection purposes. Likewise, Tourres uses a planar laser beam to effect detection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, there is always a motivation in the marketplace to reduce costs or increase the efficiency of an apparatus to obtain a better product.

Thus, as set forth above, this rejection is proper.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X Luu whose telephone number is (571) 272-2441. The examiner can normally be reached on M-F (6:30-4:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu
Primary Examiner
Art Unit 2878

05/04